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(54) Title: INTERACTION OF THE CYCLIC-AMP-SPECIFIC PHOSPHODIESTERASE PDE4D5 WITH RACK1

(57) Abstract: It has been discovered that the cAMP-specific phosphodiesterase, PDE4D5, interacts specifically and with high affinity with the Receptor for Activated C-Kinase (RACK1). The region of PDE4D5 that interacts with RACK1 was determined, and it was shown that peptides spanning this region inhibit the specific interaction of PDE4D5 and RACK1. Drugs that inhibit or stimulate this interaction should be therapeutically important for treating various conditions. A method for screening candidate drugs involves detecting inhibition or stimulation of this interaction of the peptide and RACK1. Peptides that modulate this interaction and methods of making thereof are also disclosed.

WO 00/71080 A3